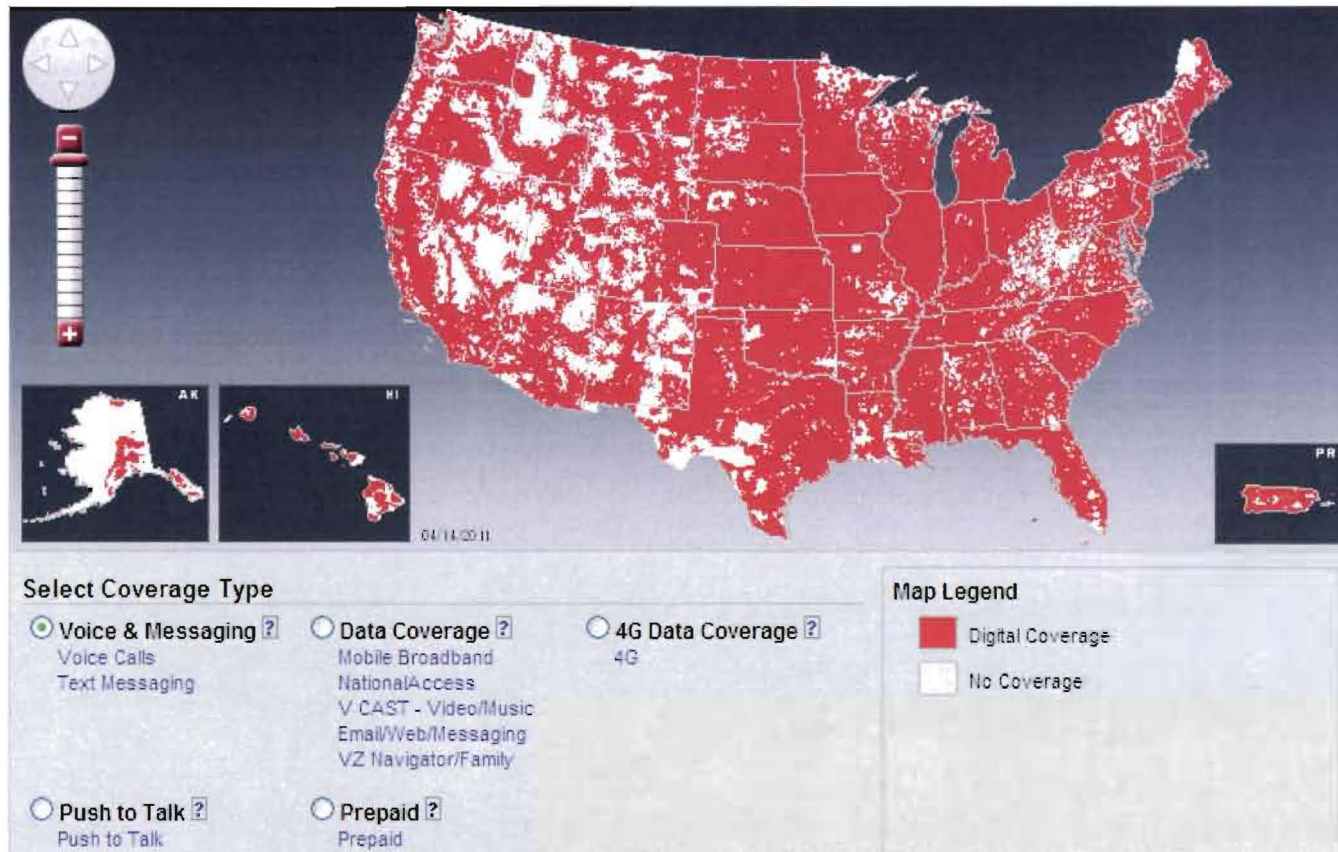
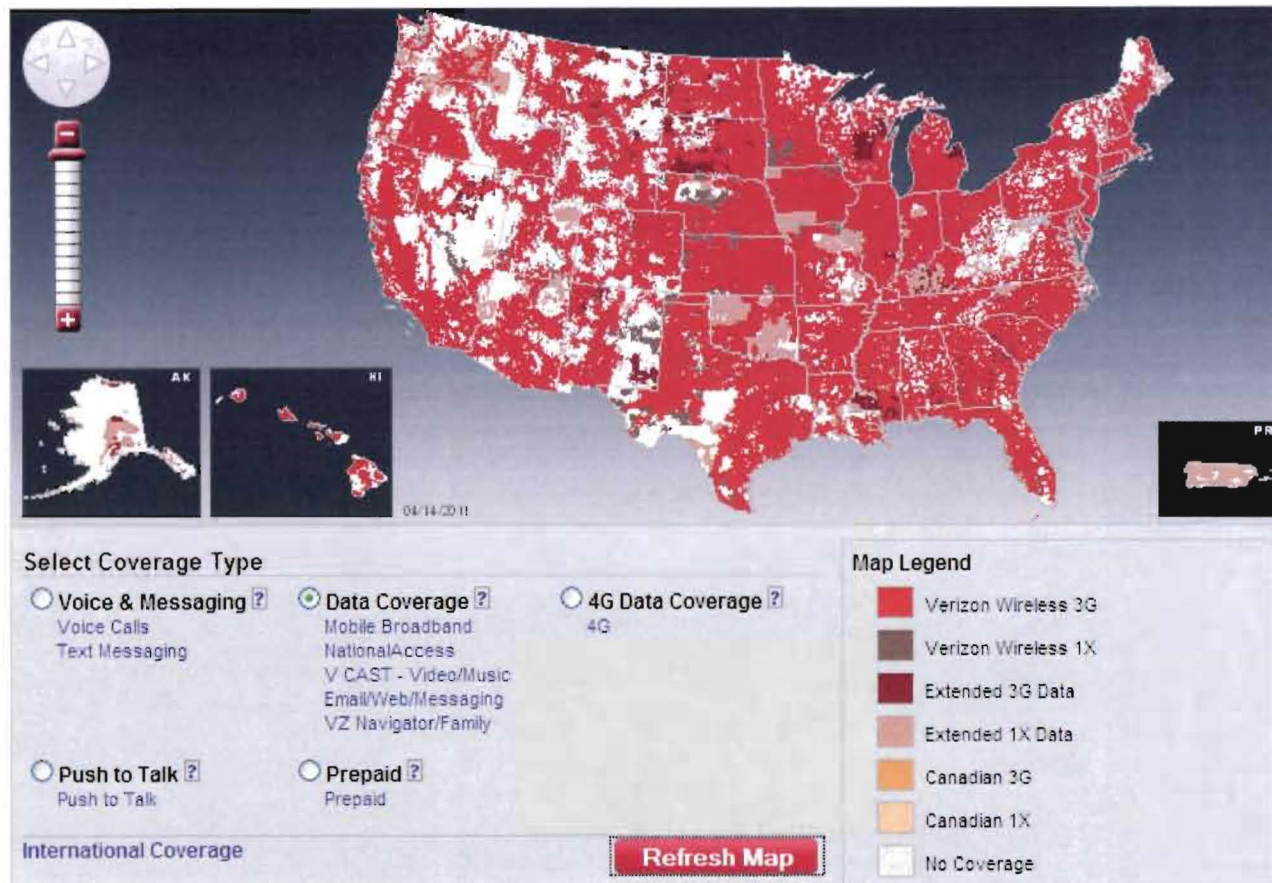


Verizon Voice Coverage Map³



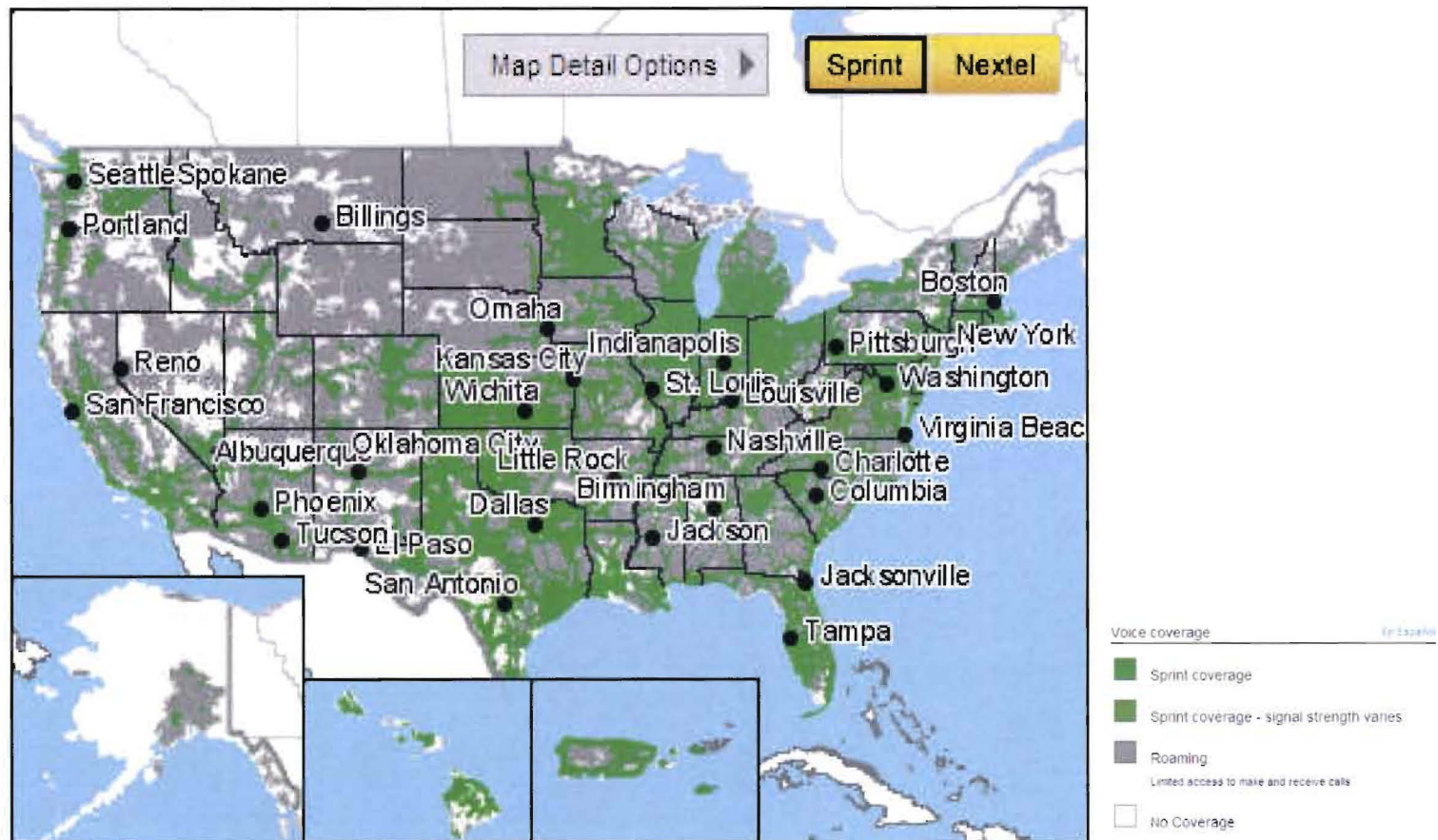
³ Verizon, *Coverage Locator*, <http://www.verizonwireless.com/b2c/CoverageLocatorController?requesttype=NEWREQUEST>.

Verizon Data Coverage Map⁴



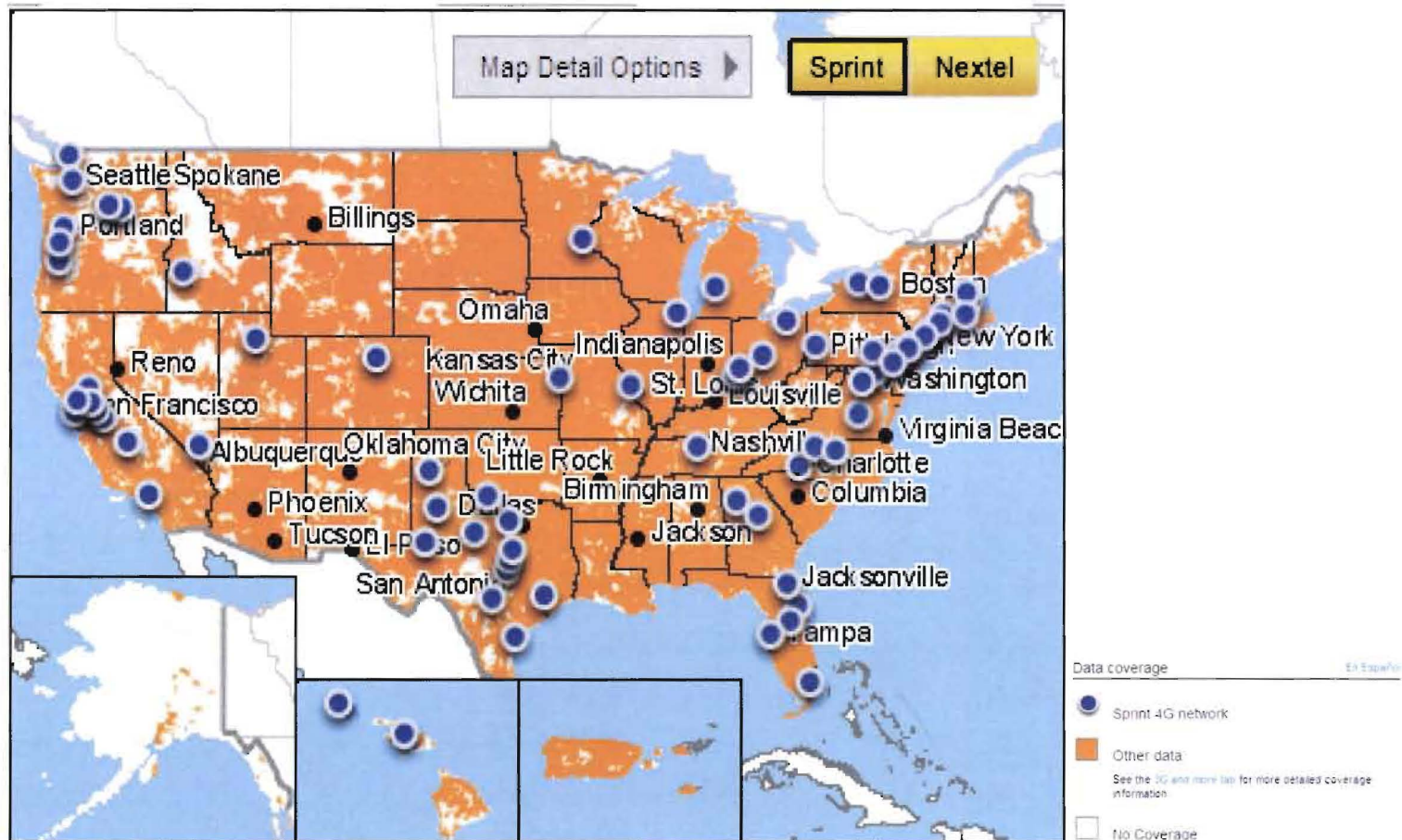
⁴ Verizon, *Coverage Locator*, <http://www.verizonwireless.com/b2c/CoverageLocatorController?requesttype=NEWREQUEST>.

Sprint Voice Coverage Map⁵



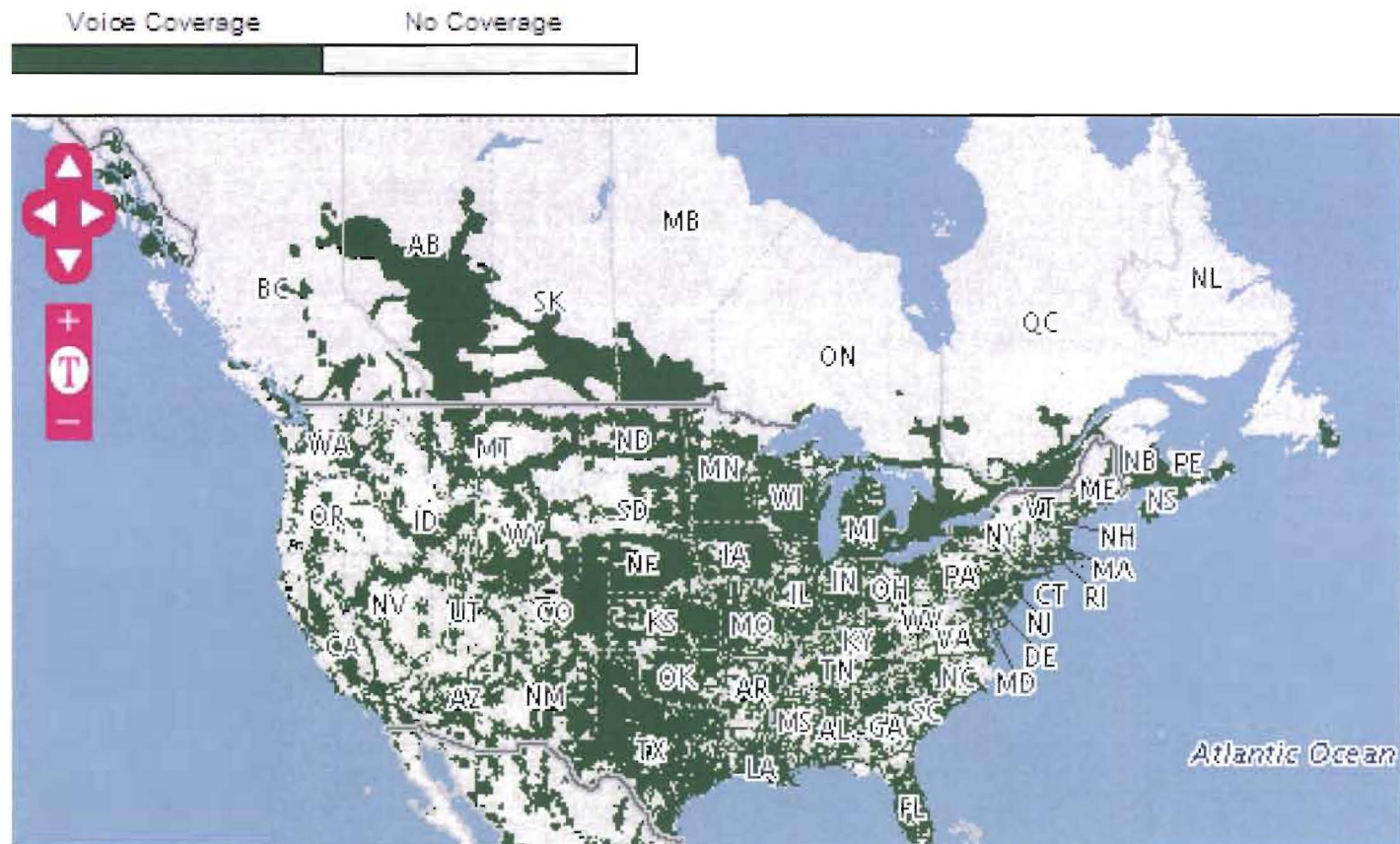
⁵ Sprint, *Coverage Check*, <http://coverage.sprintpcs.com/IMPACT.jsp>.

Sprint Data Coverage Map⁶



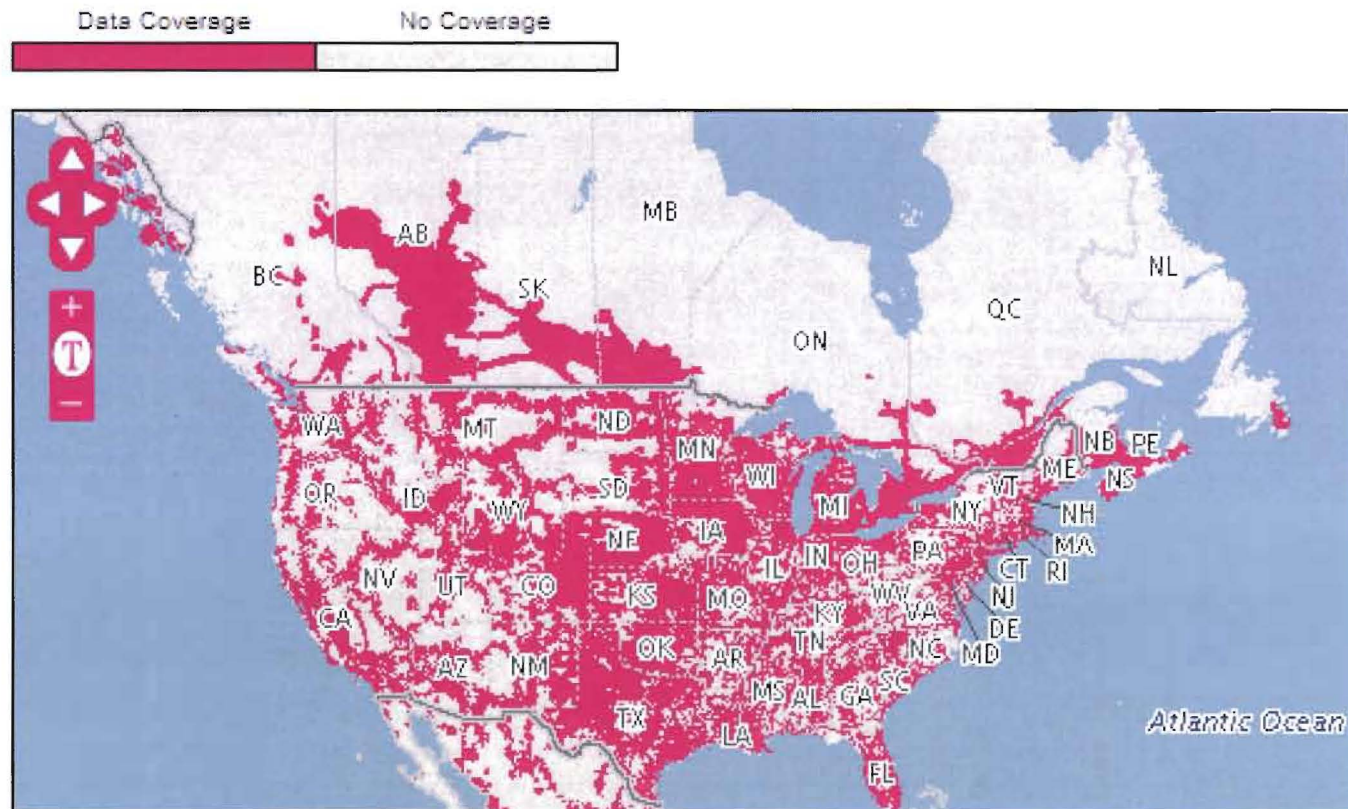
⁶ Sprint, *Coverage Check*, <http://coverage.sprintpcs.com/IMPACT.jsp>.

T-Mobile Voice Coverage Map⁷



⁷ T-Mobile, *Personal Coverage Check*, <http://www.t-mobile.com/coverage/pcc.aspx>.

T-Mobile Data Coverage Map⁸



⁸ T-Mobile, *Personal Coverage Check*, <http://www.t-mobile.com/coverage/pcc.aspx>.

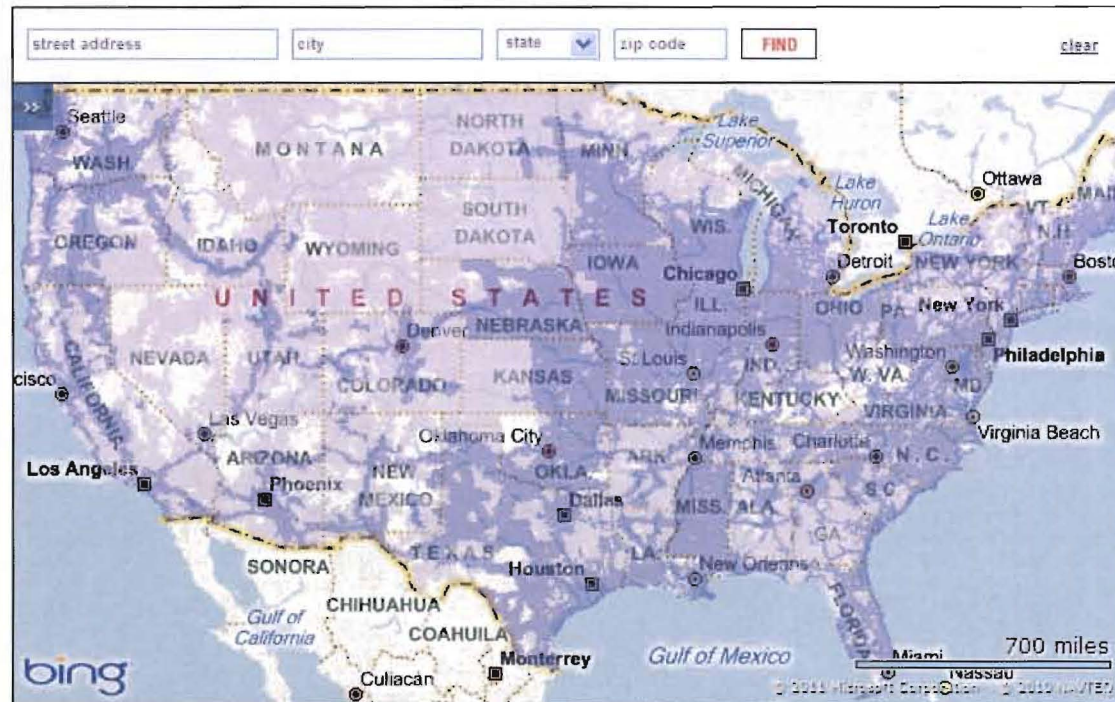
MetroPCS Voice Coverage Map⁹

COVERAGE MAP

TALK, TEXT & MORE

UNLIMITED TEXT

4G



MetroPCS Coverage

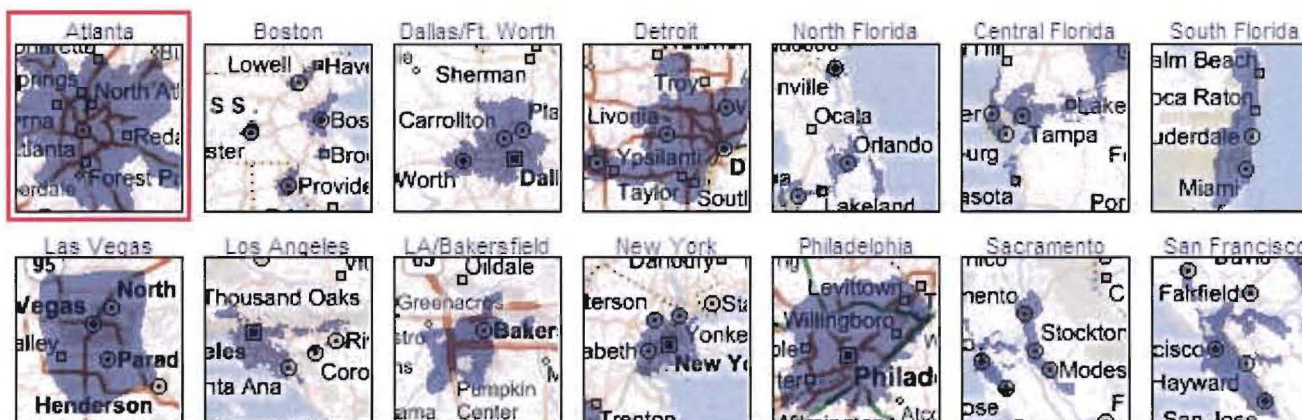
Talk and text available. Web, email and multimedia available in some areas. Access to this coverage is included in all Rate Plans. See [RATE PLANS](#) for details.

TravelTalk®

Text FREE in TravelTalk areas. Requires text messaging feature.

⁹ MetroPCS, Coverage Map, <http://www.metropcs.com/coverage>.

MetroPCS 4G Data Coverage Maps¹⁰



MetroPCS 4G HOME AREA

Full service talk and text. Web, email and multimedia at 4G speeds.

See [RATE PLANS](#) for details.

MetroPCS HOME AREA

Full service talk, text, Web, email, and multimedia.

See [RATE PLANS](#) for details.

MetroPCS EXTENDED HOME AREA

Talk and text available. Web, email and multimedia available in some areas. Access to this coverage is included in all Rate Plans.

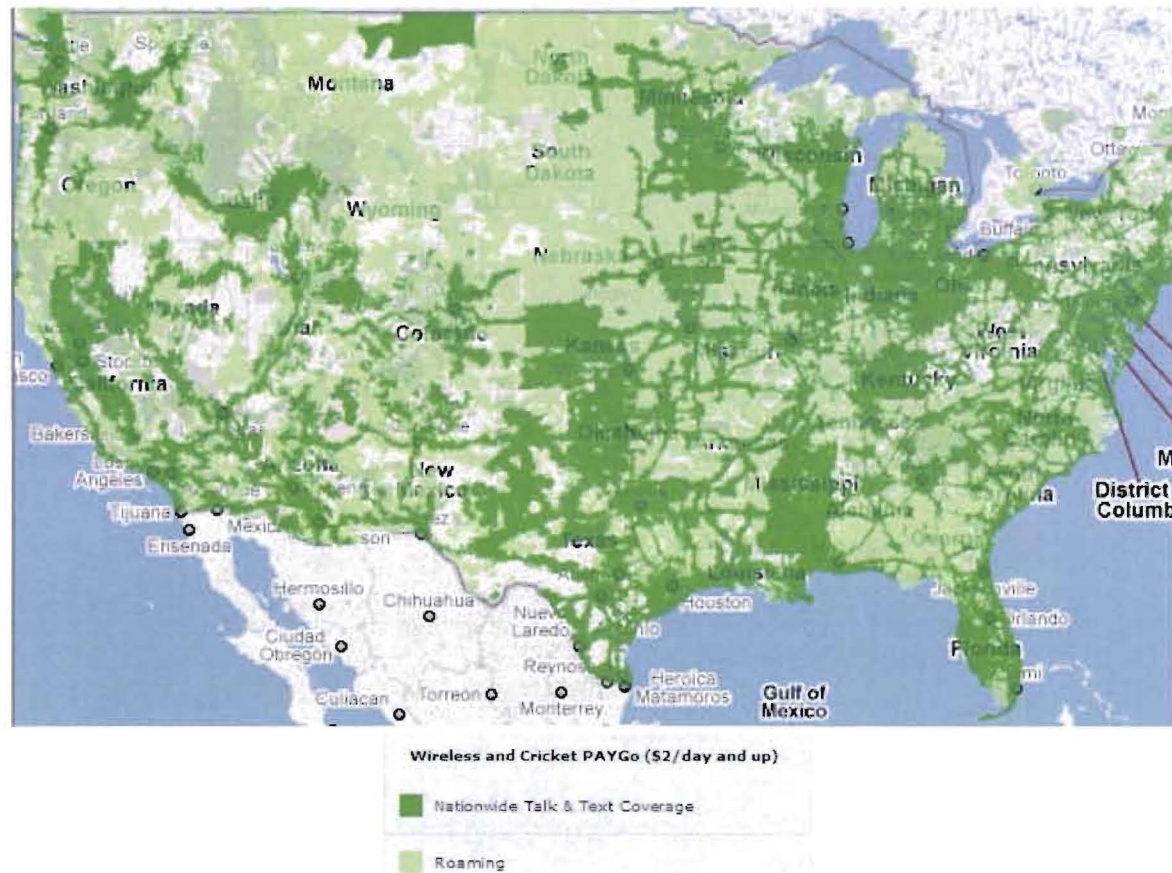
See [RATE PLANS](#) for details.

TravelTalk®

Text FREE in TravelTalk areas.
Requires text messaging feature.

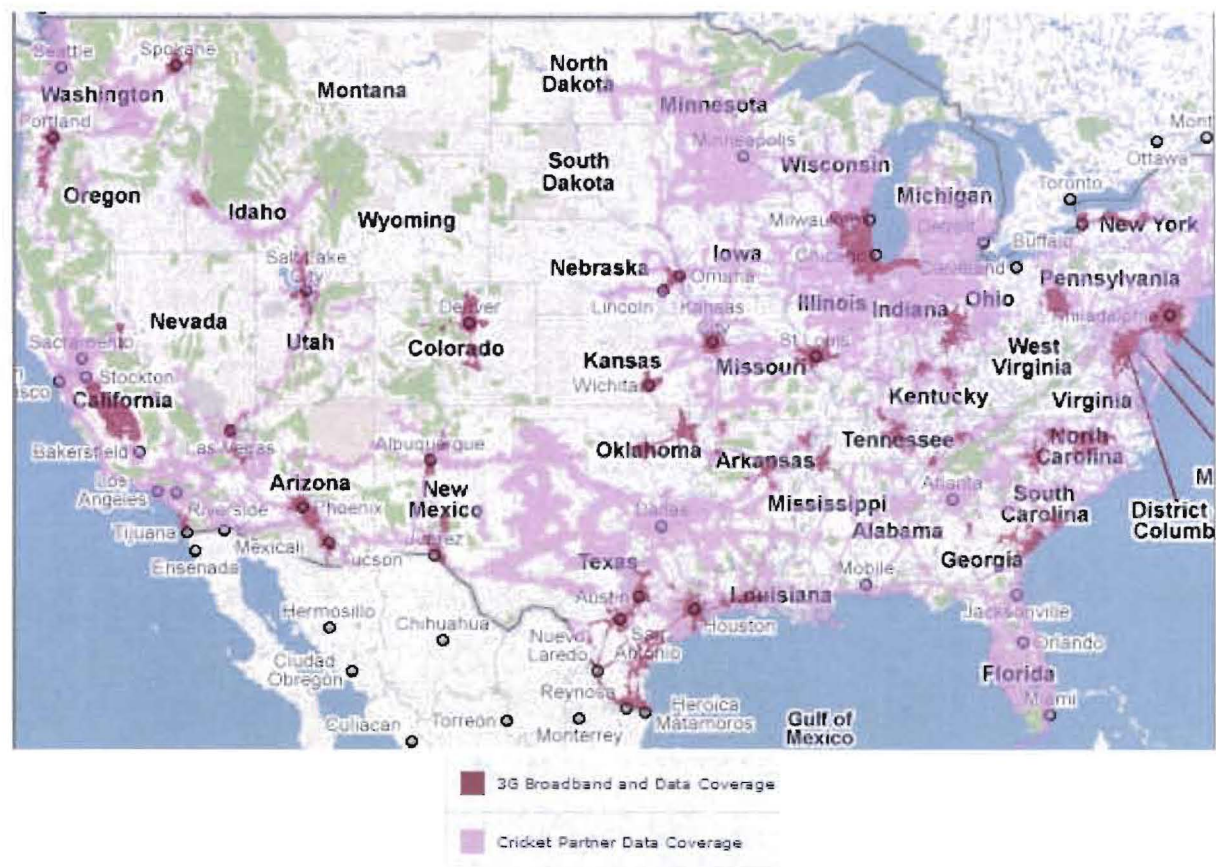
¹⁰ MetroPCS, *Coverage Map*, <http://www.metropcs.com/coverage>.

Cricket Voice Coverage Map¹¹



¹¹ Cricket, *Wireless Nationwide Coverage Maps*, <http://www.mycricket.com/coverage/maps/wireless>.

Cricket Data Coverage Map¹²



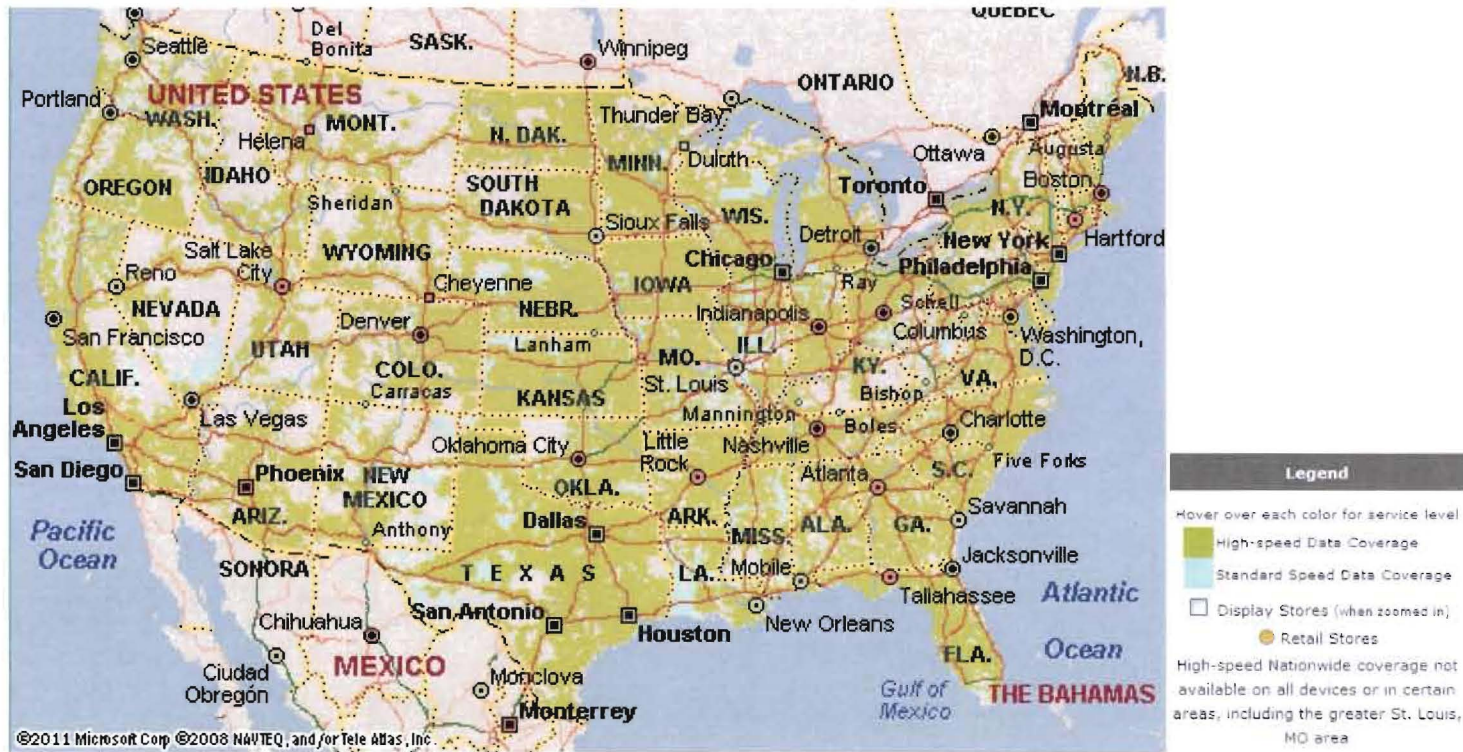
¹² Cricket, *Wireless Nationwide Coverage Maps*, <http://www.mycricket.com/coverage/maps/wireless>.

US Cellular Voice Coverage Map¹³



¹³ U.S. Cellular, *Coverage Indicator*, <http://www.uscellular.com/coverage-map/coverage-indicator.html>.

US Cellular Data Coverage Map¹⁴



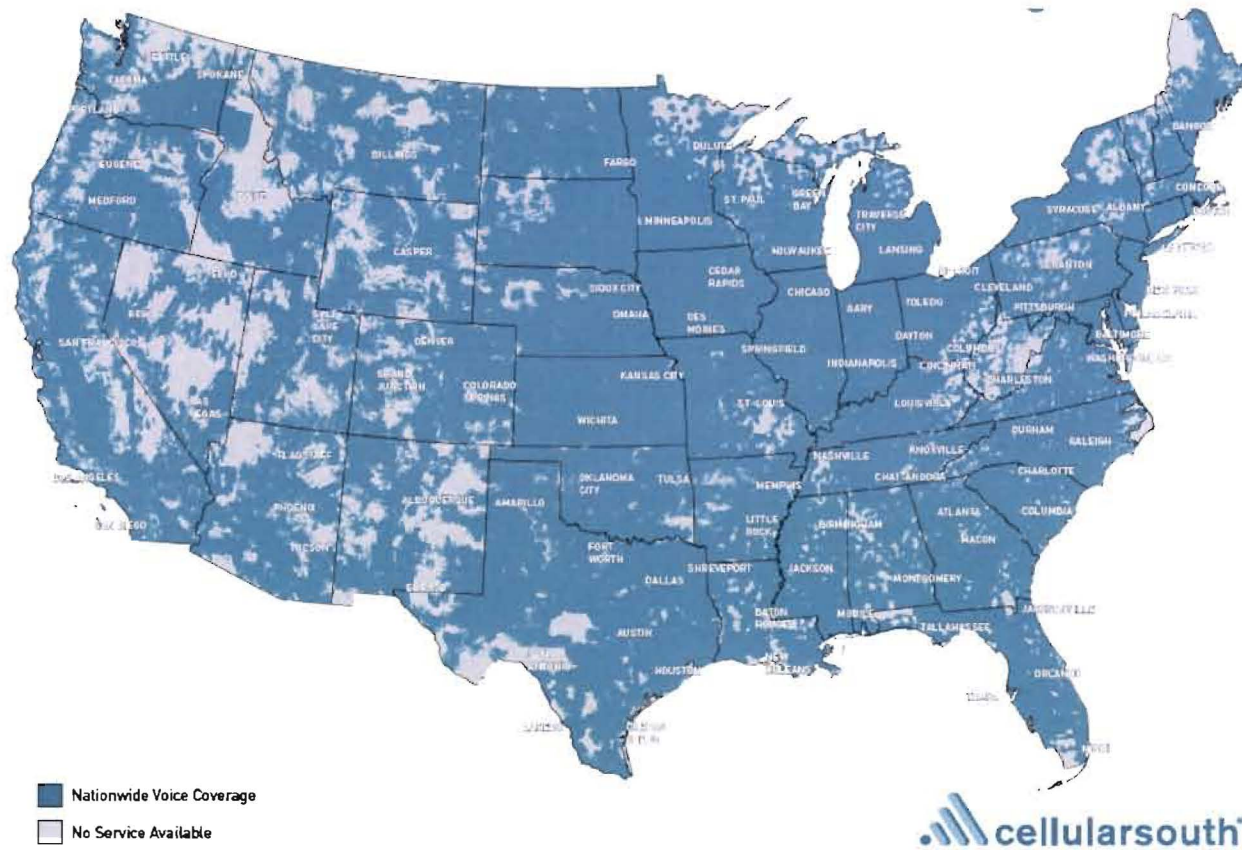
¹⁴ U.S. Cellular, *Coverage Indicator*, <http://www.uscellular.com/coverage-map/coverage-indicator.html>.

Cincinnati Bell Coverage Map¹⁵



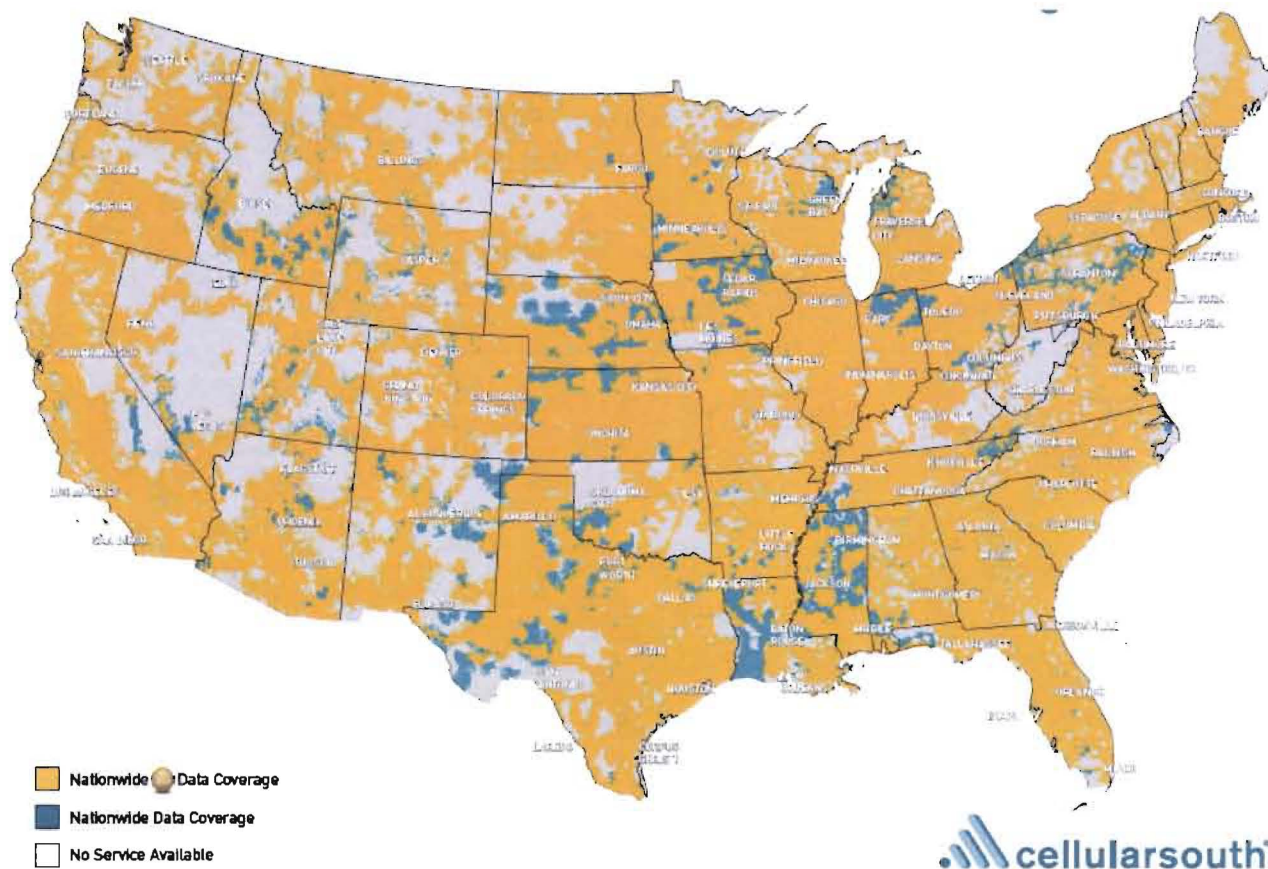
¹⁵Cincinnati Bell, *Wireless Coverage*, <http://www.cincinnati-bell.com/consumer/wireless/coverage>.

Cellular South Voice Coverage Map¹⁶



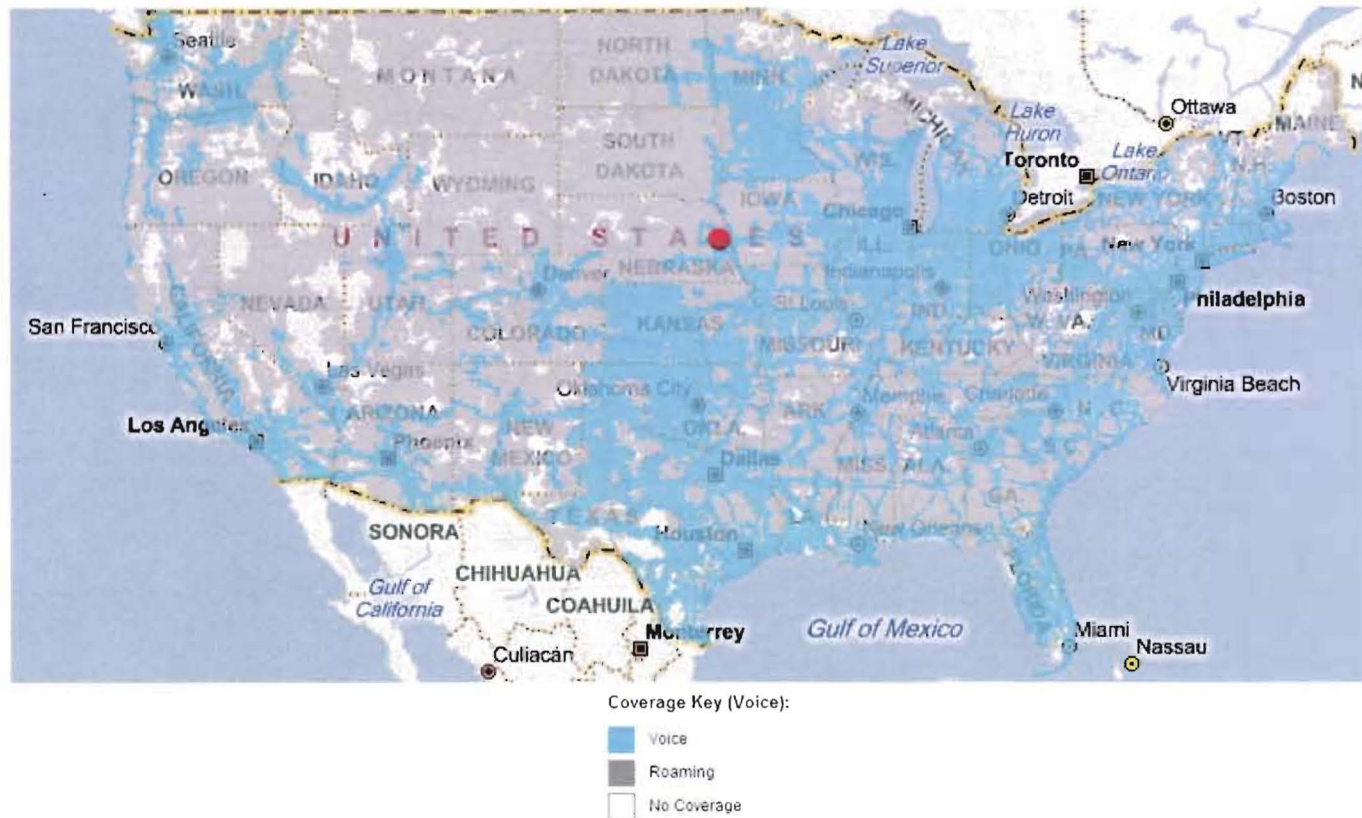
¹⁶ Cellular South, *Cellular South Nationwide Voice Coverage*, https://www.cellularsouth.com/coverage/maps/voice_coverage.pdf.

Cellular South Data Coverage Map¹⁷



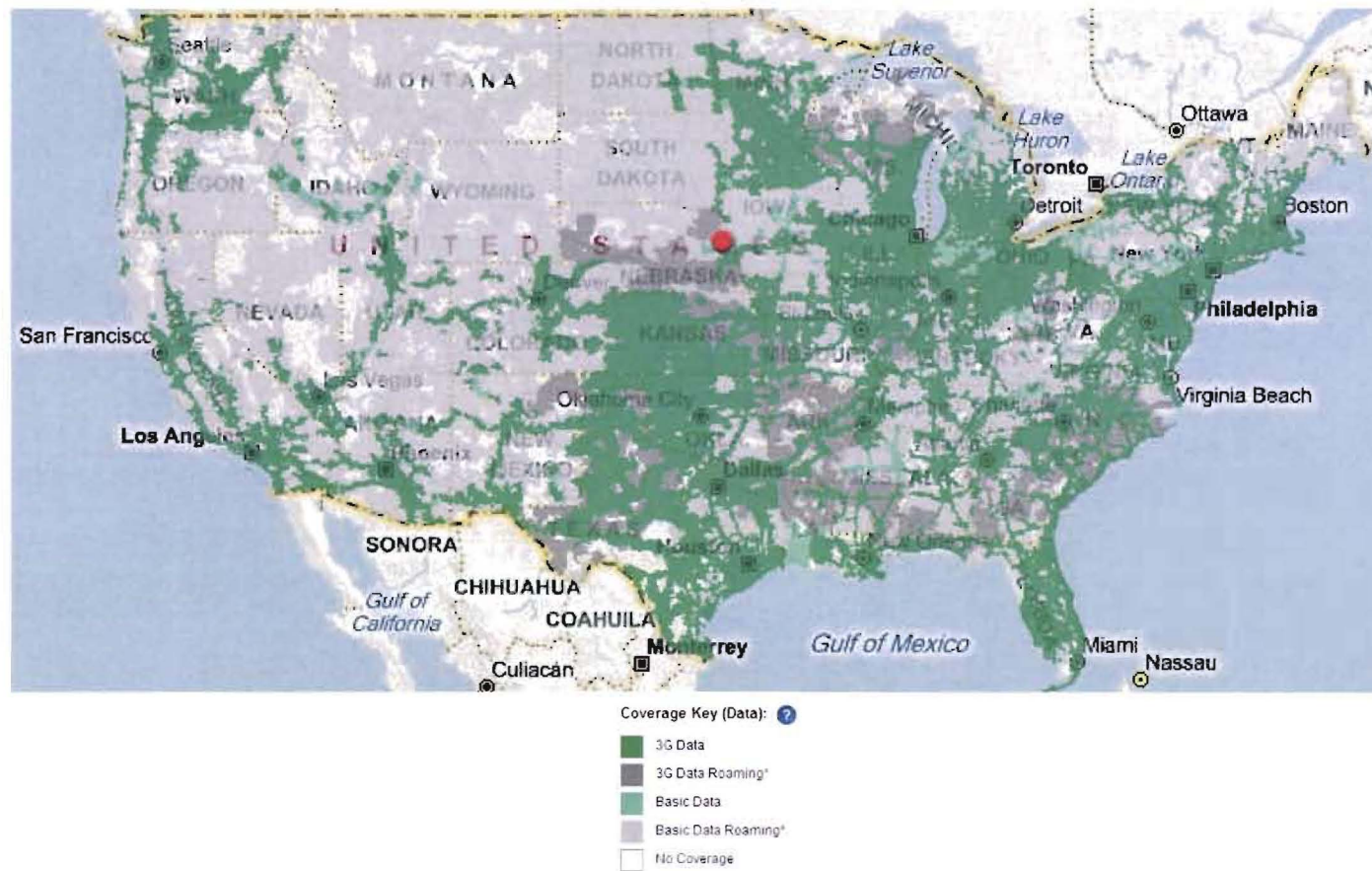
¹⁷ Cellular South, *Cellular South Nationwide Data Coverage*, https://www.cellularsouth.com/coverage/maps/voice_coverage.pdf.

Cox Voice Coverage Map¹⁸



¹⁸ Cox, *Map Search*, <http://ww2.cox.com/residential/omaha/wireless/wireless-coverage-map.cox>.

Cox Data Coverage Map¹⁹



¹⁹ Cox, *Map Search*, <http://ww2.cox.com/residential/omaha/wireless/wireless-coverage-map.cox>.

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DECLARATION OF WILLIAM HOGG

I, William Hogg, hereby declare the following:

I. BIOGRAPHICAL INFORMATION

1. I am Senior Vice President of Network Planning and Engineering, AT&T Services, Inc. ("AT&T"). I was appointed to that position in November 2008. I am responsible for the wireline and wireless network engineering functions of the company. I manage the multi-billion dollar network capital plan and am charged with integrating acquired assets into the company. My wireless responsibilities range from expanding and increasing the capacity of our mobile broadband networks to improving the quality of our wireless services, to planning and deploying new, more spectrally efficient network technologies. My responsibilities also extend to solutions throughout our entire network infrastructure, including the facilities over which we deliver our wireline broadband Internet, wireline telephone, and U-verse advanced TV services.

2. Prior to my current position, I served as President of Mobility Network Operations, where I oversaw all phases of network engineering, cell site and other construction activities, and operations and maintenance across the entire wireless footprint. I previously held a variety of network strategic planning and new product deployment roles, including Chief Technology Officer for Cingular Interactive, where I was responsible for engineering, information technology, and software and application development for Cingular's wireless data business. I have been involved in the planning and execution of many large-scale company-wide initiatives, including the complex merger integration activities following the consolidation of Cingular and AT&T Wireless and subsequent integrations of Dobson, Centennial, and Alltel

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properties. I have also overseen our mobile wireless broadband network upgrades from the planning stages of AT&T's initial Universal Mobile Telecommunications System ("UMTS") deployment through our current upgrade to Long Term Evolution ("LTE"). I hold Bachelor's and Master's degrees in Electrical Engineering from the Georgia Institute of Technology, as well as a Master's degree in Business Administration from the University of South Florida.

II. INTRODUCTION AND OVERVIEW

3. The U.S. wireless industry has experienced rapid growth in demand for mobile broadband services in recent years, and there is consensus that this trend will continue. The rise of data-intensive smartphones, tablets, and other consumer and commercial devices connected wirelessly to the Internet, as well as the resulting explosion of mobile applications, social networking capabilities, video and music streaming, and other rich media has dramatically increased data traffic. Emerging cloud computing, real-time interactive video, and other mobile innovations promise to create even greater demand in the future.

4. As my colleague John Donovan, AT&T's Chief Technology Officer, details in his declaration, AT&T is an industry leader in the wireless broadband revolution, introducing and aggressively promoting the latest network technologies, as well as innovative new smartphones and other connected devices capable of far greater speeds and far more useful applications than earlier handsets.¹ As a result, AT&T's network has been uniquely strained by the exponential growth in data traffic. AT&T faces severe spectrum and capacity constraints in certain markets today and projects that such constraints will increase and expand to many other areas throughout

¹ Declaration of John Donovan, Chief Technology Officer, AT&T Inc., ¶¶ 4-5 (April 20, 2011).

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the country over the next several years. Thus, additional spectrum and network capacity is needed to address existing and growing future capacity constraints. We need to act immediately in light of the lead time needed to address such spectrum and capacity issues.

5. These network capacity challenges are compounded by the fact that we must continue to allocate our limited spectrum and other resources among three different network technologies. Close to **[Begin Confidential Information]** **[End Confidential Information]** customers – nearly **[Begin Confidential Information]** **[End Confidential Information]** of AT&T's subscribers – continue to rely solely on AT&T's earlier generation Global System for Mobile Communications ("GSM") network for their wireless communications needs. Although those customers will migrate over time to more spectrally efficient UMTS and/or LTE services, AT&T must continue to provide sufficient GSM capacity well into this decade to ensure that those customers are able to receive quality service in the interim. At the same time, AT&T must support the **[Begin Confidential Information]** **[End Confidential Information]** customers that receive service on its UMTS network for a substantial number of years, while dedicating sufficient additional spectrum for its planned LTE deployment that is beginning this year.

6. Our ability to quickly meet these capacity challenges with our existing spectrum inventory is extremely limited. Rising demand has been consuming our limited spectrum resources at a rapid and accelerating rate. In 2004, AT&T on average had to deploy an additional 10 MHz of spectrum every two years in major markets to keep pace with demand. From 2008-2010, UMTS demand growth in certain major markets consumed an additional 10 MHz of spectrum in half that time or less.

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7. Consequently, AT&T faces spectrum and capacity constraints in a significant number of markets large and small. In many areas throughout the country, we need or very soon will need substantial network capacity to continue providing high quality service (and to launch and support new services). By 2013, AT&T estimates that it will lack adequate capacity to meet existing GSM and UMTS performance targets in more than **[Begin Confidential Information]**

[End Confidential Information] Cellular Market Areas ("CMAs") located throughout the country in urban and rural areas that collectively cover more than **[Begin Confidential Information]** **[End Confidential Information]** people and in additional markets in subsequent years thereafter. AT&T also projects capacity constraints as early as **[Begin Confidential Information]** **[End Confidential Information]** on its LTE network in **[Begin Confidential Information]** **[End Confidential Information]** as customers migrate to that service. While we will continue to address spectrum constraints on a market by market basis, this transaction allows AT&T to address these constraints (and the corresponding diminished service quality risk) while also enhancing AT&T's ability to deploy innovative new advanced wireless services and devices.

8. AT&T has made, and continues to make, extraordinary efforts to keep pace with the soaring demand for mobile broadband and to maintain and improve performance on its GSM and UMTS networks. AT&T has invested in spectrum acquisitions both to create additional capacity on existing networks and to support the next generation of mobile broadband networks. AT&T has migrated spectrum from GSM to UMTS as quickly as its commitment to maintain quality service to our GSM customers will allow. AT&T has continually invested in upgrades to its UMTS network to improve spectral efficiency, most recently to the HSPA+ technology, and

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the company is in the initial stages of deploying LTE technology, which, among other things, will increase throughput speeds, reduce latency, and enable wider carrier bandwidths that will further increase spectral efficiency. AT&T has spent approximately **[Begin Confidential Information]** **[End Confidential Information]** annually in recent years to further enhance capacity by increasing cell density through new cell sites (cell splitting), additional UMTS radio carriers, and network performance optimization (high-speed backhaul, sector reorientation, antenna tilts, and other modifications). AT&T also has been an industry leader in solutions designed to off-load traffic from, and reduce demands on, our GSM and UMTS wireless networks. AT&T operates more than 24,000 Wi-Fi hotspots at locations in all 50 states, and we have aggressively deployed distributed antenna systems (“DAS”)² and other solutions to relieve localized network congestion.

9. Despite these efforts, we continue to be outpaced by soaring demand growth, and all of the measures we have been actively pursuing are not only more costly than spectrum solutions, but ultimately insufficient to broadly address the growing capacity challenges we face. With no additional spectrum scheduled to be auctioned in the near term, very limited secondary market spectrum opportunities, the imperative of continuing to support multiple networks, and the unavoidable delays and limits associated with constructing new cell sites and other network responses, we are thus threatened with spectrum exhaust in numerous markets.

² Distributed antenna systems are collections of small antennas that are deployed over a small geographic area and then connected back to a central location through fiber. They can be used to fill in gaps in cell coverage and to increase capacity within a geographically limited area.

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10. This transaction provides by far the most effective, efficient, and immediate solution to address these capacity challenges. AT&T and T-Mobile USA have highly complementary wireless technologies (GSM and UMTS), spectrum holdings (PCS and AWS) and network grids (cell site locations). For that reason, the combined company will be able to quickly implement direct capacity-creating synergies by combining networks, sharing spectrum, splitting cells, and shifting spectrum from less to more spectrally efficient network technologies to alleviate the network capacity constraints facing both companies over the coming years. These synergies will provide the combined company with the flexibility to optimize network solutions for each individual market's specific needs. Moreover, these synergies will create a true "1+1=3" scenario in which the combined company has significantly more capacity – and the ability to serve significantly more customers and demand – than the sum of the two companies' capacities if they continued to operate separately. These efficiencies are specific to the combination of these two companies and far exceed those that could be generated from combining two other companies and their networks.

11. Taking all of the expected network and spectrum efficiencies into account, AT&T's ongoing analysis projects that the transaction will substantially increase GSM and UMTS network capacity in congested areas and push back the date of projected spectrum exhaust, allowing for LTE migration and the ramping down of the GSM networks to ease traffic congestion on UMTS networks. This will provide the necessary turn-around space to re-purpose spectrum to more efficient radio technologies. The transaction will also ease serious capacity constraints we would otherwise expect on our LTE network as that network becomes heavily used. These very substantial capacity gains and the additional "running room" they provide will

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quickly deliver a myriad of significant benefits to the current and future customers of AT&T and T-Mobile USA. Because of this transaction, customers can expect fewer dropped and blocked calls and data connections, faster and more reliable data services, a better overall mobile broadband experience, and expanded and improved LTE service. In addition, as John Donovan explains in his declaration, the increased capabilities the transaction makes possible will strongly promote innovation and the successful introduction of new wireless capabilities by AT&T and others throughout the wireless ecosystem.

12. There are numerous network efficiencies that will result from the combination of the two companies' spectrum holdings and network assets. We estimate that these efficiencies, in combination, will push back the date of expected spectrum exhaust in many markets, particularly in our constrained markets. Two broad categories of network efficiencies will address these spectrum exhaust issues:

- **Increased Cell Density.** The combined company expects to integrate more than [Begin Confidential Information] [End Confidential Information] T-Mobile USA cell sites into the AT&T network. Upon network integration, this will equate to "instant" cell splits – increasing cell density and effectively doubling the amount of network traffic that can be carried using existing spectrum in the areas served by those cell sites. Importantly, this network integration will start immediately after closing, can be targeted initially to areas with the greatest capacity needs, and can provide fewer dropped calls, higher throughputs, and other service improvements in areas of various markets in as early as nine months, with nationwide integration expected to be complete in twenty-four months. These benefits will be realized far sooner and with far more impact than could ever be accomplished by attempting to duplicate the T-Mobile USA cell sites (and backhaul) from scratch (even assuming away site availability, tower capacity, zoning, and other real-world obstacles to such cell site construction). Following network integration, the cell splits will create immediate capacity improvements across the combined company's GSM and UMTS network and also will expand capacity as AT&T rolls out LTE.
- **More Efficient Network Utilization.** In several important respects, the transaction will facilitate much more efficient utilization of the integrated networks than either